

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1000364

Luminaire Tested: SA4XXDP-B575DB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000364  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDP-B575DB2750-4F0-XX-W2A-F\_3500K  
Description: Define 4 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

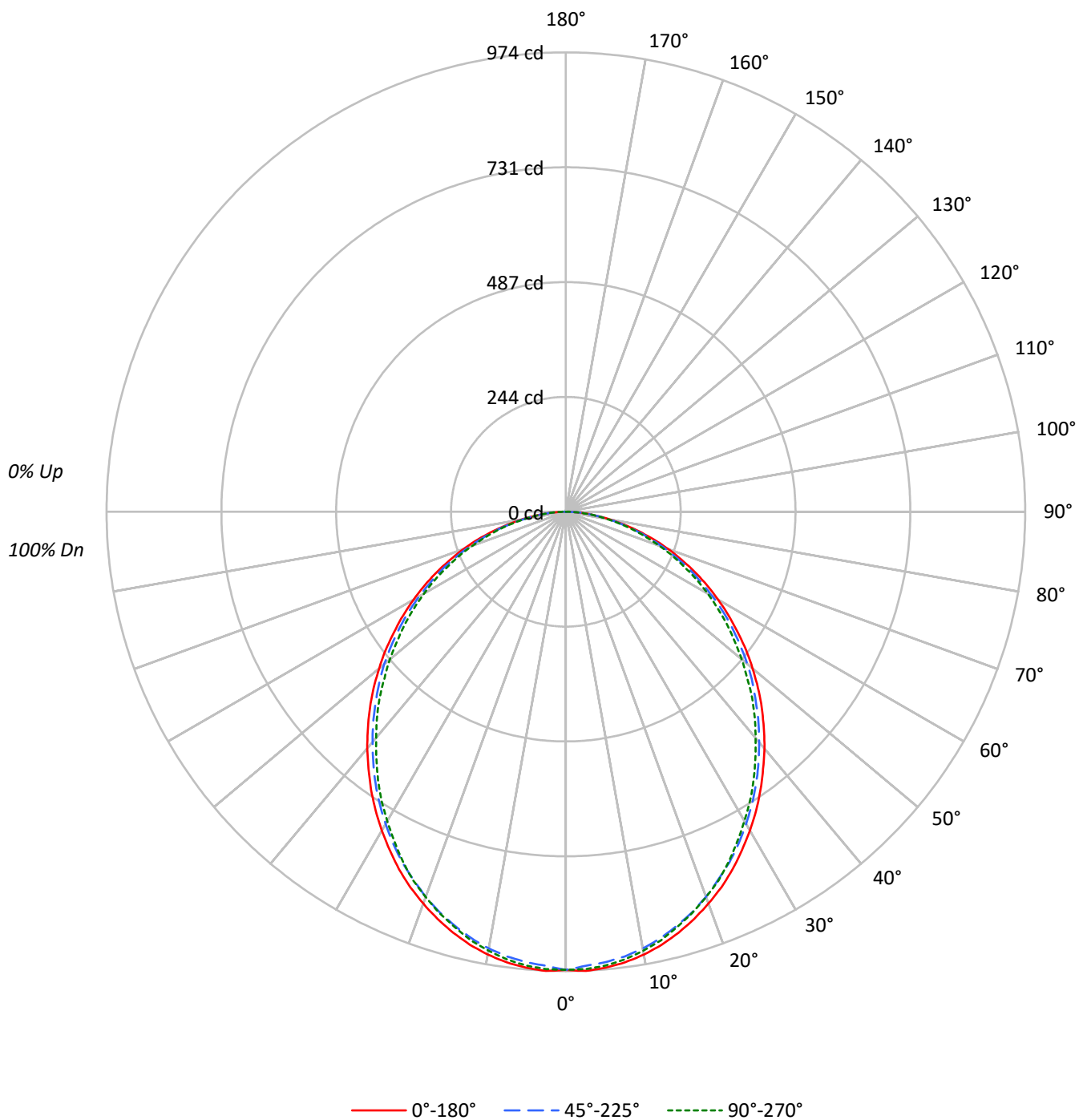
Lumens per Lamp: N/A  
Luminaire Lumens: 2493.0 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 24  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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### COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |    |    |   |  |  |  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  |     |    |    | 0 |  |  |  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 0 |  |  |  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |   |  |  |  |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |    |    |   |  |  |  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 73  | 70  |    |    |   |  |  |  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 67  | 63  | 70  | 66  | 62  | 60  |    |    |   |  |  |  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |    |    |   |  |  |  |
| 5   | 77  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 44  |    |    |   |  |  |  |
| 6   | 71  | 58  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  | 53  | 47  | 41  | 52  | 46  | 41  | 39  |    |    |   |  |  |  |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 37  | 50  | 43  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |    |    |   |  |  |  |
| 8   | 61  | 48  | 39  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 43  | 37  | 33  | 31  |    |    |   |  |  |  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |    |    |   |  |  |  |
| 10  | 54  | 41  | 33  | 28  | 52  | 40  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |    |    |   |  |  |  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7920 | 7920 | 7920 |
| 5°  | 7944 | 7848 | 7906 |
| 10° | 7894 | 7785 | 7823 |
| 15° | 7799 | 7674 | 7694 |
| 20° | 7672 | 7538 | 7544 |
| 25° | 7527 | 7381 | 7360 |
| 30° | 7350 | 7197 | 7131 |
| 35° | 7166 | 7004 | 6911 |
| 40° | 6976 | 6785 | 6661 |
| 45° | 6776 | 6570 | 6444 |
| 50° | 6556 | 6379 | 6181 |
| 55° | 6318 | 6130 | 5931 |
| 60° | 6080 | 5852 | 5674 |
| 65° | 5812 | 5586 | 5360 |
| 70° | 5510 | 5233 | 5028 |
| 75° | 5050 | 4805 | 4685 |
| 80° | 4494 | 4311 | 4203 |
| 85° | 3930 | 3789 | 3714 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle:  $45^\circ$

Luminance: 6776 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 91.5   | 3.7       |
| 10°-20°   | 257.9  | 10.3      |
| 20°-30°   | 379.6  | 15.2      |
| 30°-40°   | 441.2  | 17.7      |
| 40°-50°   | 441.2  | 17.7      |
| 50°-60°   | 385.9  | 15.5      |
| 60°-70°   | 286.5  | 11.5      |
| 70°-80°   | 162.5  | 6.5       |
| 80°-90°   | 46.6   | 1.9       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 729.1  | 29.2      |
| 0°-40°    | 1170.3 | 46.9      |
| 0°-60°    | 1997.4 | 80.1      |
| 0°-90°    | 2493.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2493.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 971 | 971   | 971 | 971   | 971 |      |
| 5°  | 970 | 967   | 959 | 967   | 966 | 92   |
| 15° | 924 | 921   | 909 | 914   | 911 | 260  |
| 25° | 837 | 831   | 820 | 821   | 818 | 385  |
| 35° | 720 | 714   | 704 | 698   | 694 | 450  |
| 45° | 588 | 582   | 570 | 561   | 559 | 453  |
| 55° | 444 | 442   | 431 | 422   | 417 | 398  |
| 65° | 301 | 297   | 290 | 282   | 278 | 298  |
| 75° | 160 | 156   | 152 | 149   | 149 | 170  |
| 85° | 42  | 42    | 40  | 40    | 40  | 48   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 971.3 | 971.3 | 971.3 | 971.3 | 971.3 |
| 2.5°  | 974.4 | 972.1 | 963.5 | 971.3 | 970.5 |
| 5°    | 970.5 | 967.4 | 958.8 | 967.4 | 965.8 |
| 7.5°  | 963.5 | 960.4 | 951.1 | 958.1 | 957.3 |
| 10°   | 953.4 | 950.3 | 940.2 | 946.4 | 944.8 |
| 12.5° | 940.2 | 937.0 | 926.1 | 933.2 | 930.8 |
| 15°   | 923.8 | 920.7 | 909.0 | 913.7 | 911.4 |
| 17.5° | 905.1 | 901.2 | 890.3 | 893.5 | 891.9 |
| 20°   | 884.1 | 880.2 | 868.6 | 870.9 | 869.3 |
| 22.5° | 861.6 | 856.1 | 844.4 | 849.1 | 846.0 |
| 25°   | 836.6 | 831.2 | 820.3 | 821.1 | 818.0 |
| 27.5° | 808.6 | 803.2 | 793.1 | 791.5 | 787.6 |
| 30°   | 780.6 | 774.4 | 764.3 | 761.2 | 757.3 |
| 32.5° | 751.0 | 745.6 | 734.7 | 730.8 | 726.9 |
| 35°   | 719.9 | 714.5 | 703.6 | 698.1 | 694.2 |
| 37.5° | 687.2 | 682.5 | 670.9 | 665.4 | 660.0 |
| 40°   | 655.3 | 649.1 | 637.4 | 629.6 | 625.7 |
| 42.5° | 621.1 | 618.0 | 604.7 | 595.4 | 593.0 |
| 45°   | 587.6 | 582.2 | 569.7 | 561.1 | 558.8 |
| 47.5° | 552.6 | 548.7 | 537.0 | 527.7 | 521.4 |
| 50°   | 516.8 | 513.7 | 502.8 | 491.9 | 487.2 |
| 52.5° | 481.8 | 477.9 | 466.2 | 456.8 | 450.6 |
| 55°   | 444.4 | 442.1 | 431.2 | 421.8 | 417.2 |
| 57.5° | 409.4 | 407.0 | 396.1 | 386.8 | 382.1 |
| 60°   | 372.8 | 368.9 | 358.8 | 351.8 | 347.9 |
| 62.5° | 337.0 | 333.9 | 323.0 | 316.8 | 312.9 |
| 65°   | 301.2 | 297.3 | 289.5 | 281.7 | 277.8 |
| 67.5° | 264.6 | 261.5 | 253.7 | 245.9 | 245.2 |
| 70°   | 231.1 | 225.7 | 219.5 | 213.2 | 210.9 |
| 72.5° | 195.3 | 189.9 | 185.2 | 180.6 | 178.2 |
| 75°   | 160.3 | 156.4 | 152.5 | 149.4 | 148.7 |
| 77.5° | 126.1 | 124.5 | 120.6 | 119.9 | 117.5 |
| 80°   | 95.7  | 93.4  | 91.8  | 90.3  | 89.5  |
| 82.5° | 66.2  | 65.4  | 65.4  | 64.6  | 63.8  |
| 85°   | 42.0  | 42.0  | 40.5  | 40.5  | 39.7  |
| 87.5° | 20.2  | 19.5  | 18.7  | 18.7  | 18.7  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)